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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/827,346	04/06/2001	Yoshishige Shimizu	7390/71285	2989

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FITCH EVEN TABIN AND FLANNERY  
120 SOUTH LA SALLE STREET  
SUITE 1600  
CHICAGO, IL 60603-3406

EXAMINER

THOMPSON, CAMIE S

ART UNIT PAPER NUMBER

1774

DATE MAILED: 08/03/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 09/827,346	<b>Applicant(s)</b> SHIMIZU ET AL.	
	<b>Examiner</b> Camie S Thompson	<b>Art Unit</b> 1774	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on Amendment filed April 30, 2004.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-8, 11-13 and 15 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1 and 3-8 is/are rejected.
- 7) ☒ Claim(s) 2, 11-13 and 15 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                        | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)    | Paper No(s)/Mail Date. _____  |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____   | 6) <input type="checkbox"/> Other: _____                                    |

## **DETAILED ACTION**

### ***Continued Examination Under 37 CFR 1.114***

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on May 25, 2004 has been entered.
2. Applicant's amendment and accompanying remarks filed April 30, 2004 have been acknowledged.
3. Examiner acknowledges amended claims 1 and 11.

### ***Claim Objections***

4. Claims 11-13 and 15 are objected to because of the following informalities: The term "retardant" is misspelled. Appropriate correction is required.

### ***Claim Rejections - 35 USC § 112***

5. The following is a quotation of the first paragraph of 35 U.S.C. 112:  
  
The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.
6. Claims 1-8, 11-13 and 15 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter, which was not

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described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. The specification discloses on page 16, lines 14-19 that the odor of the HALS-based stabilizer has its odor suppressed in the core portion in the final product. In amended claim 1, the odor is not suppressed in the final product.

***Claim Rejections - 35 USC § 103***

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 1 and 3-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Haley et al., U.S. Patent Number 5,393,812.

Haley discloses a flame retardant, light stable composition prepared from a polyolefin fiber or film, preferably polypropylene as per instant claim 1 (see abstract, column 1, lines 5-9 and column 15, lines 34-39). Also, the reference discloses a halogenated hydrocarbyl phosphate ester flame retardant is present in the amount of 0.5 percent and 0.01 to 3 percent of a functional hindered amine as per instant claim 1 (see column 12, lines 13-34). The reference also discloses that the hydrocarbyl phosphate can include an aromatic phosphate as per instant claim 5 (see column 6, lines 53-68). Haley discloses that the hindered amines are the alkoxyamine functional hindered amines light stabilizers known as NOR (see column 1, line 59-column 2, line 64). Additionally, the reference discloses that the R group in the NOR type hindered amine-based

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stabilizer can be a cycloalkyl as shown in column 3, line 55 as per instant claim 6. Column 12, lines 35-44 of the reference discloses that the UV light absorber can be present in the amount of 0.01 to 3 percent as per instant claim 7. It is also disclosed in the reference in column 4, lines 36-42 that the fiber can be a multifilament yarn as per instant claim 8. The reference discloses in column 6, lines 17-29 that the polypropylene fiber can be bicomponent [core/sheath structure] and multiconstituent [multiple layers]. Haley also discloses that those of ordinary skill in the art can readily determine the proportions of the polymer fibers/films. The composition of the reference discloses at least one polyolefin, at least one flame retardant and at least one UV light stabilizer. Therefore, it would have been obvious to one of ordinary skill in the art to have a core/sheath construction where the core comprises a polypropylene resin containing the phosphoric ester based flame retardant and the NOR type hindered amine based stabilizer, and a sheath component comprises a polypropylene resin containing 0.3% by weight or less of the hindered amine-based stabilizer, and the total fiber contains 0.5% by weight or more of the phosphoric ester-based flame retardant and 0.4 by weight or more of the NOR type hindered amine-based stabilizer in order to obtain good flame retardancy and good resistance to UV degradation (see column 6, lines 17-20 and column 24, lines 23-29). It is a physical property of the NOR-type hindered amine-based stabilizer to have an odor.

Claims 3-8 are product by process claims. Even though product by process claims are limited and defined by the process, determination of patentability is based on the product itself. The patentability of a product does not depend on its method of production. If the product in the product by process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior art was made by a different process. See MPEP 2113. Both

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the Haley reference and applicant recite a flame retarding polypropylene fiber. The process of measuring flame contact does not make the fiber a different product. Both applicant and Haley reference recite a flame retarding polypropylene fiber having a core-sheath structure, wherein a core component is a polypropylene resin containing a phosphoric ester-based flame retardant and a NOR-type hindered amine-based stabilizer, a sheath component is a polypropylene resin containing 0.3% by weight or less of the hindered amine-based stabilizer, and the total fiber contains 0.5% by weight or more of the phosphoric ester-based flame retardant and 0.4% by weight or more of the NOR-type hindered amine based stabilizer.

9. Claim 2 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. The prior art of record fails to teach or suggest the recited flame retarding polypropylene fiber having a core-sheath structure, and further including a fiber strength is 4.0 cN/dtex or more.


10. Claims 11-13 and 15 would be allowable, if rewritten to correct the minor informalities of the claim objection. The prior art of record fails to teach or suggest the recited flame retarding polypropylene film, and further including at least one of intermediate layers is composed of a polypropylene resin containing the phosphoric ester-based flame retardant and the NOR type hindered amine-based stabilizer that has flame retardancy and odor.

***Response to Arguments***

11. Applicant's arguments filed April 30, 2004 have been fully considered but they are not persuasive. Applicant argues that amended claim 1 has a core component that has an odor from the NOR type hindered amine-based stabilizer. However, the specification discloses that the core component has the NOR type hindered amine-based stabilizer odor suppressed. The specification is in direct contrast with amended claim 1.

Any inquiry concerning this communication or earlier communication from the examiner should be directed to Camie S. Thompson whose telephone number is (571) 272-1530. The examiner can normally be reached on Monday through Friday from 7:30 am to 4:00 pm. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rena Dye, can be reached at (571) 272-3186. The fax phone number for the Group is (703) 872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
RENA DYE  
PRIMARY EXAMINER  
*Supervisory*  
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